



STIC Search Report

Biotech-Chem Library

STIC Database Tracking Number: 136331

TO: Rei-Tsang Shiao

Location: 5a10 / 5c18

Thursday, October 28, 2004

Art Unit: 1626

Phone: 272-0707

Serial Number: 10 / 669963

From: Jan Delaval

Location: Biotech-Chem Library

Rem 1A51

Phone: 272-2504

jan.delaval@uspto.gov

Search Notes

*Jan DeLoach
for search*

1762-1

Access DB# _____

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Robert (Bert) Shin Examiner #: 7952 Date: 10/29/04
Art Unit: 1626 Phone Number 302-0707 Serial Number: 10664463
Mail Box and Bldg/Room Location: _____ Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

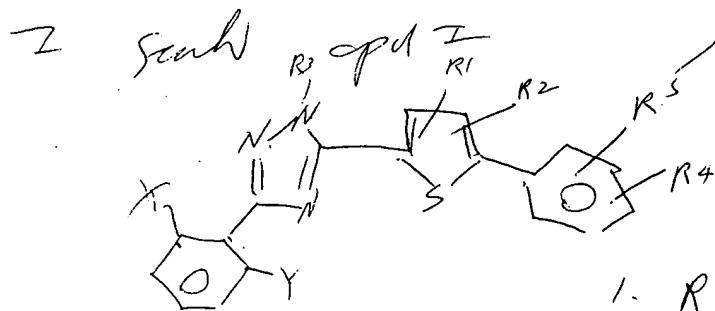
Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc., if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Insecticidal

Inventors (please provide full names): R. Hayde et al

Earliest Priority Filing Date: _____

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.



see sub.

2. X, Y are halogen

II. Search methods of use

of cpd 2

STAFF USE ONLY

Searcher: Qan

Type of Search

NA Sequence (#)

Vendors and cost where applicable

STN

=> fil reg
FILE 'REGISTRY' ENTERED AT 17:06:13 ON 28 OCT 2004
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STRUCTURE FILE UPDATES: 27 OCT 2004 HIGHEST RN 770693-70-4
DICTIONARY FILE UPDATES: 27 OCT 2004 HIGHEST RN 770693-70-4

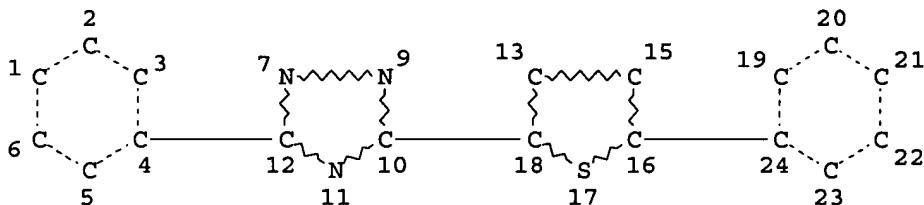
TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

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Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> d 13 sta que
L1 STR



NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 22

STEREO ATTRIBUTES: NONE
L3 45 SEA FILE=REGISTRY SSS FUL L1

100.0% PROCESSED 997 ITERATIONS 45 ANSWERS
SEARCH TIME: 00.00.01

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DEL HIS

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L3 45 S L1 FUL
SAV L3 SHIAO664/A
DEL SHIAO664/A
SAV L3 SHIAO664/A TEMP

L4 FILE 'HCAOLD' ENTERED AT 17:05:45 ON 28 OCT 2004
 0 S L3

L5 FILE 'HCAPLUS' ENTERED AT 17:05:47 ON 28 OCT 2004
 3 S L3

L6 FILE 'USPATFULL, USPAT2' ENTERED AT 17:05:50 ON 28 OCT 2004
 6 S L3
 SET COST OFF

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 FILE 'HCAPLUS' ENTERED AT 17:06:21 ON 28 OCT 2004
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FILE COVERS 1907 - 28 Oct 2004 VOL 141 ISS 18
 FILE LAST UPDATED: 27 Oct 2004 (20041027/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

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L5 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 2003:242328 HCAPLUS
 DN 138:271686
 ED Entered STN: 28 Mar 2003
 TI Preparation of insecticidal 3-(2,6-disubstituted phenyl)-5-[4-(or 5-)arylthien-2-(or 3)yl]-1,2,4-triazoles
 IN Hegde, Vidyadhar Babu; Bis, Scott Jerome; Yap, Maurice Chee Hoong; Perreault, Denise Marie; Tisdell, F. Gene; Dintenfass, Leonard Paul; Dripps, James Edwin; Gifford, James Michael; Guenthensberger, Katherine Anne; Karr, Laura Lee; Schoonover, Joe Raymond
 PA Dow Agrosciences LLC Patent Department, USA
 SO PCT Int. Appl., 103 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 IC ICM C07D409-00
 ICS C07D409-14
 CC 28-10 (Heterocyclic Compounds (More Than One Hetero Atom))
 Section cross-reference(s): 5
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003024961	A1	20030327	WO 2002-US29197	20020913
	WO 2003024961	C1	20040527		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2003134748 A1 20030717 US 2002-244124 20020913

US 6770665 B2 20040803

EP 1425278 A1 20040609 EP 2002-770514 20020913

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK

US 2004072887 A1 20040415 US 2003-664145 20030917

US 2004171661 A1 20040902 US 2003-664463 20030917

PRAI US 2001-322236P P 20010914

US 2002-244124 A3 20020913

WO 2002-US29197 W 20020913

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2003024961	ICM	C07D409-00
	ICS	C07D409-14
US 2004072887	ECLA	A01N043/653; C07D409/04; C07D409/14; C07D409/14
OS MARPAT 138:271686		

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The title triazoles [I; Q = II-IV; X, Y = Cl, F; R1, R2 = H, alkyl, halo (provided that when Q = II or IV, then R1 and R2 are not both H); R3 = alkyl; R4 = halo, alkyl, alkoxy, etc.; R5 = H, halo or alkyl ether or haloalkyl ether, which when taken together with R4, form a 5-6 membered ring containing 1 or 2 oxygen atoms] which are effective in controlling lepidoptera, coleoptera, mites and other sucking pests, were prepared. Thus, coupling of 4-(F₃CO)C₆H₄B(OH)₂ with the triazole V (preparation given) in the presence of Na₂CO₃, P(o-tolyl)₃ and PdCl₂(PPh₃)₂ in MeCN afforded 43% VI which showed 90-100% control against two-spotted spider mite at 2.5 ppm.

ST phenylarylthienyltriazole prep insecticide pesticide; triazole phenyl arylthienyl prep insecticide pesticide

IT Insecticides
(preparation of insecticidal 3-(2,6-disubstituted phenyl)-5-[4-(or 5-)arylthien-2-(or 3)-yl]-1,2,4-triazoles)

IT Acari
Coleoptera
Lepidoptera
Pesticides
(preparation of insecticidal 3-(2,6-disubstituted phenyl)-5-[4-(or 5-)arylthien-2-(or 3)-yl]-1,2,4-triazoles for controlling lepidoptera, coleoptera, mites and other sucking pests)

IT 503307-51-5P 503307-64-0P 503308-32-5P 503308-39-2P
RL: AGR (Agricultural use); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of insecticidal 3-(2,6-disubstituted phenyl)-5-[4-(or 5-)arylthien-2-(or 3)-yl]-1,2,4-triazoles)

IT 503307-43-5P 503307-44-6P 503307-45-7P 503307-46-8P 503307-47-9P
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 503308-91-6P 503308-92-7P 503308-93-8P 503308-94-9P **503308-95-0P**

RL: AGR (Agricultural use); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of insecticidal 3-(2,6-disubstituted phenyl)-5-[4-(or 5-)arylthien-2-(or 3)-yl]-1,2,4-triazoles)

IT 107-08-4, 1-Iodopropane 116-15-4, Hexafluoropropene 6629-60-3,
 Ethylhydrazine oxalate 25015-63-8 68834-05-9, 4-(1,1,2,2-Tetrafluoroethoxy)bromobenzene 78071-30-4, 4-Methylthiophene-3-carboxylic acid 139301-27-2, 4-Trifluoromethoxybenzeneboronic acid 153562-66-4, Ethyl 3-chlorothiophene-2-carboxylate 168971-68-4, 4-Bromo-3-fluoro-1-(trifluoromethoxy)benzene 264257-61-6 503309-13-5
 503309-14-6 503309-15-7

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of insecticidal 3-(2,6-disubstituted phenyl)-5-[4-(or 5-)arylthien-2-(or 3)-yl]-1,2,4-triazoles)

IT 352535-96-7P 503308-96-1P 503308-97-2P 503308-98-3P 503308-99-4P
 503309-00-0P 503309-01-1P 503309-02-2P 503309-03-3P 503309-04-4P
 503309-05-5P 503309-06-6P 503309-07-7P 503309-08-8P 503309-09-9P
 503309-10-2P 503309-11-3P 503309-12-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of insecticidal 3-(2,6-disubstituted phenyl)-5-[4-(or 5-)arylthien-2-(or 3)-yl]-1,2,4-triazoles)

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Dow Agrosciences Llc; WO 0024735 A 2000 HCAPLUS
- (2) Dow Agrosciences Llc; WO 0024737 A 2000 HCAPLUS
- (3) Tisdell, F; US 6015826 A 2000 HCAPLUS

IT 503308-03-0P 503308-04-1P 503308-05-2P

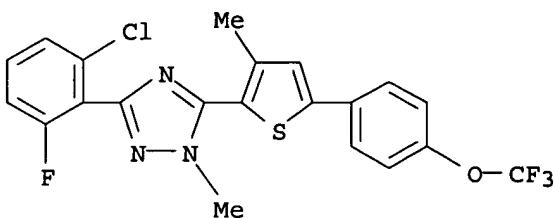
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 503308-76-7P 503308-77-8P 503308-78-9P
 503308-79-0P 503308-80-3P 503308-81-4P
 503308-82-5P

RL: AGR (Agricultural use); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of insecticidal 3-(2,6-disubstituted phenyl)-5-[4-(or 5-)arylthien-2-(or 3)-yl]-1,2,4-triazoles)

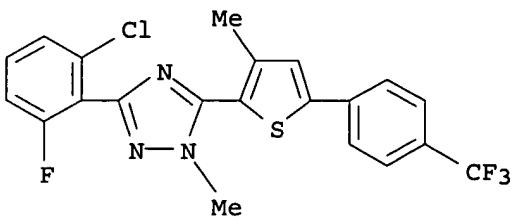
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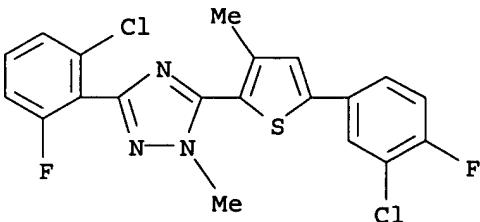
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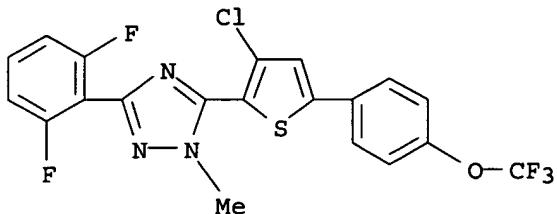
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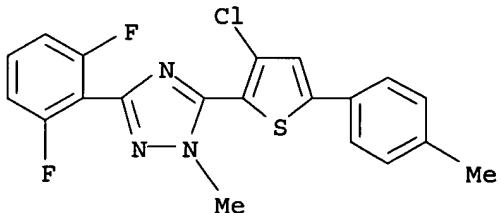
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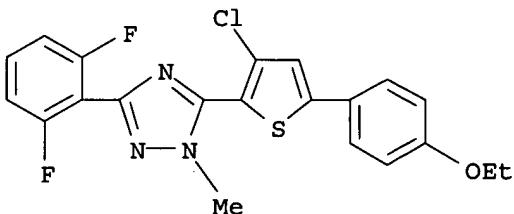
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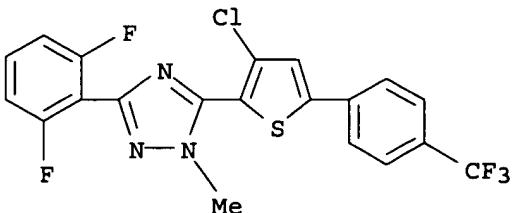
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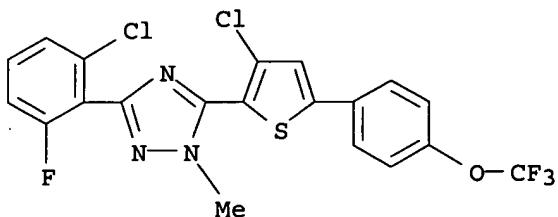
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RN 503308-10-9 HCAPLUS

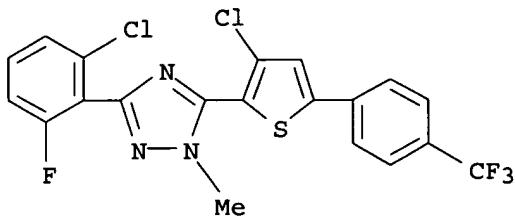
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(trifluoromethoxy)phenyl]-2-thienyl]-1-methyl- (9CI) (CA INDEX NAME)



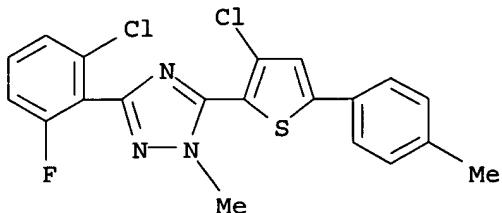
RN 503308-11-0 HCPLUS

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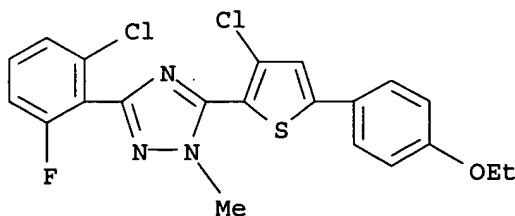
RN 503308-12-1 HCPLUS

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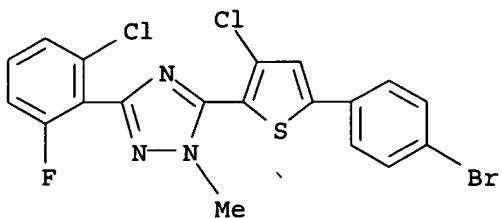
RN 503308-13-2 HCPLUS

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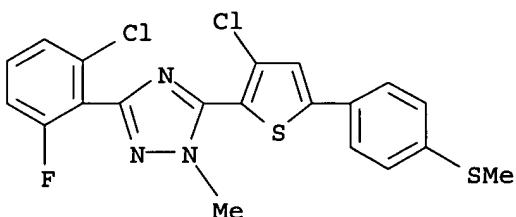
RN 503308-14-3 HCPLUS

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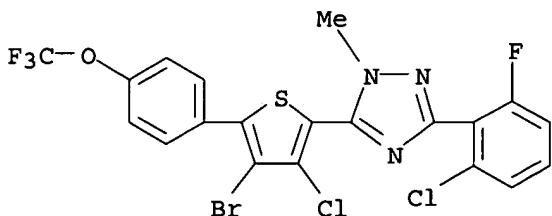
RN 503308-15-4 HCAPLUS

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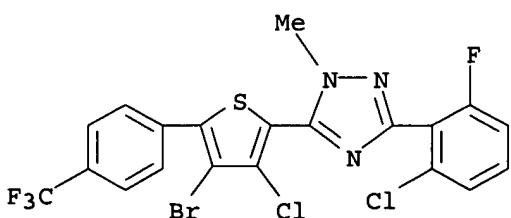
RN 503308-16-5 HCAPLUS

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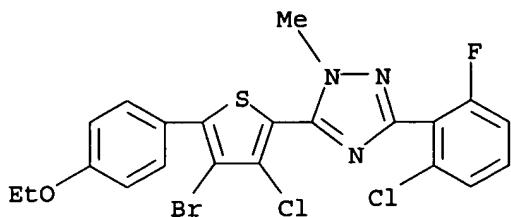
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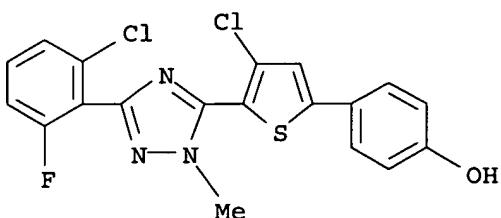


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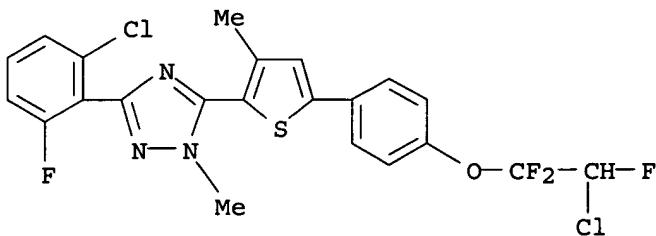
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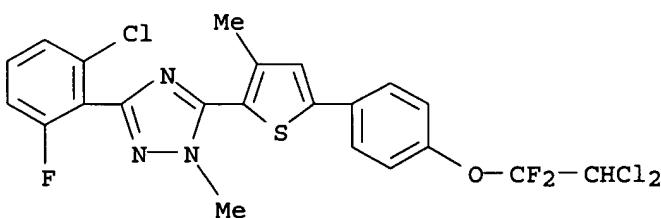
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 CN Phenol, 4-[4-chloro-5-[3-(2-chloro-6-fluorophenyl)-1-methyl-1H-1,2,4-triazol-5-yl]-2-thienyl]- (9CI) (CA INDEX NAME)



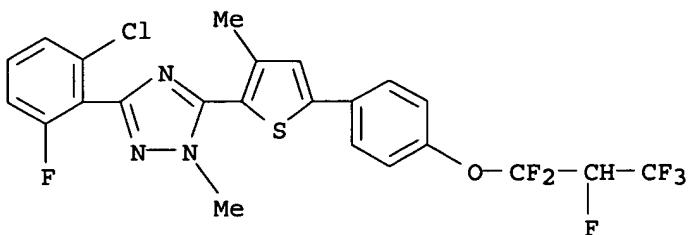
RN 503308-50-7 HCAPLUS
 CN 1H-1,2,4-Triazole, 3-(2-chloro-6-fluorophenyl)-5-[5-[4-(2-chloro-1,1,2-trifluoroethoxy)phenyl]-3-methyl-2-thienyl]-1-methyl- (9CI) (CA INDEX NAME)



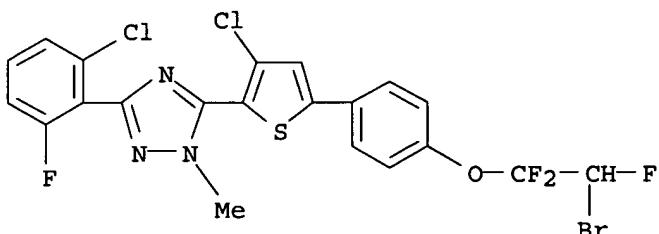
RN 503308-51-8 HCAPLUS
 CN 1H-1,2,4-Triazole, 3-(2-chloro-6-fluorophenyl)-5-[5-[4-(2,2-dichloro-1,1-difluoroethoxy)phenyl]-3-methyl-2-thienyl]-1-methyl- (9CI) (CA INDEX NAME)



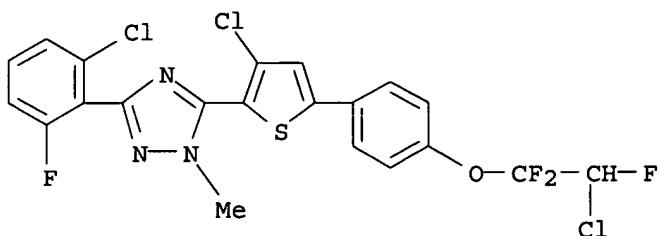
RN 503308-52-9 HCAPLUS
 CN 1H-1,2,4-Triazole, 3-(2-chloro-6-fluorophenyl)-5-[5-[4-(1,1,2,3,3,3-hexafluoropropoxy)phenyl]-3-methyl-2-thienyl]-1-methyl- (9CI) (CA INDEX NAME)



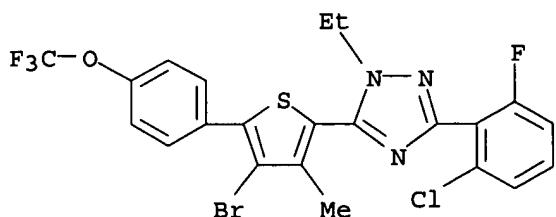
RN 503308-53-0 HCPLUS
 CN 1H-1,2,4-Triazole, 5-[5-[4-(2-bromo-1,1,2-trifluoroethoxy)phenyl]-3-chloro-2-thienyl]-3-(2-chloro-6-fluorophenyl)-1-methyl- (9CI) (CA INDEX NAME)



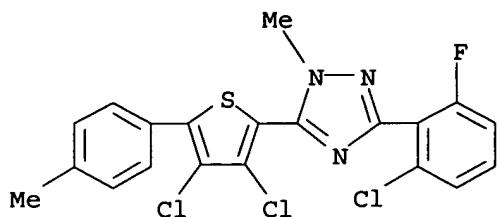
RN 503308-55-2 HCPLUS
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RN 503308-61-0 HCPLUS
 CN 1H-1,2,4-Triazole, 5-[4-bromo-3-methyl-5-[4-(trifluoromethoxy)phenyl]-2-thienyl]-3-(2-chloro-6-fluorophenyl)-1-ethyl- (9CI) (CA INDEX NAME)

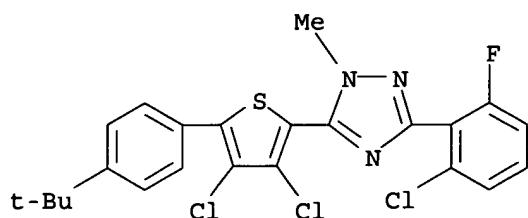


RN 503308-63-2 HCPLUS
 CN 1H-1,2,4-Triazole, 3-(2-chloro-6-fluorophenyl)-5-[3,4-dichloro-5-(4-methylphenyl)-2-thienyl]-1-methyl- (9CI) (CA INDEX NAME)



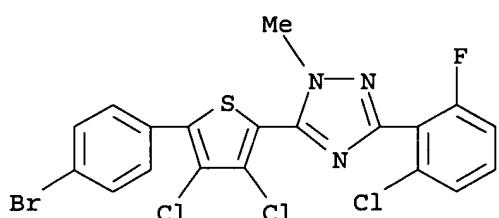
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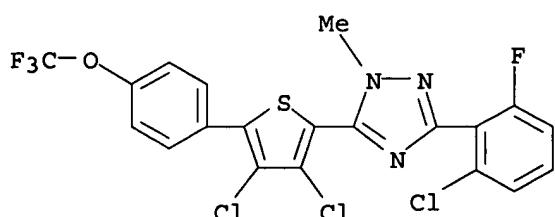
RN 503308-65-4 HCAPLUS

CN 1H-1,2,4-Triazole, 5-[5-(4-bromophenyl)-3,4-dichloro-2-thienyl]-3-(2-chloro-6-fluorophenyl)-1-methyl- (9CI) (CA INDEX NAME)



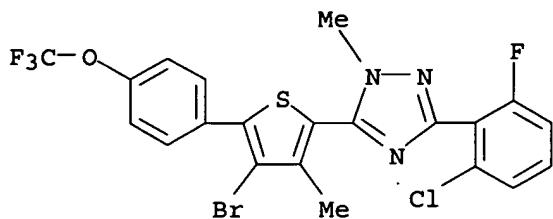
RN 503308-66-5 HCAPLUS

CN 1H-1,2,4-Triazole, 3-(2-chloro-6-fluorophenyl)-5-[3,4-dichloro-5-[4-(trifluoromethoxy)phenyl]-2-thienyl]-1-methyl- (9CI) (CA INDEX NAME)



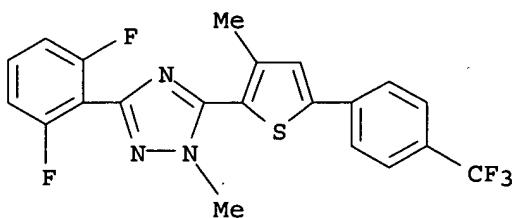
RN 503308-67-6 HCAPLUS

CN 1H-1,2,4-Triazole, 5-[4-bromo-3-methyl-5-[4-(trifluoromethoxy)phenyl]-2-thienyl]-3-(2-chloro-6-fluorophenyl)-1-methyl- (9CI) (CA INDEX NAME)



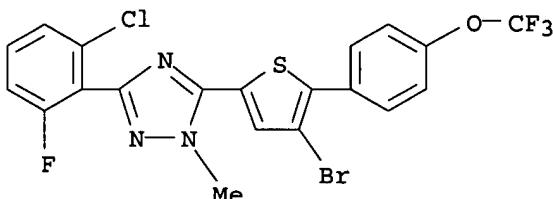
RN 503308-68-7 HCPLUS

CN 1H-1,2,4-Triazole, 3-(2,6-difluorophenyl)-1-methyl-5-[3-methyl-5-[4-(trifluoromethyl)phenyl]-2-thienyl]- (9CI) (CA INDEX NAME)



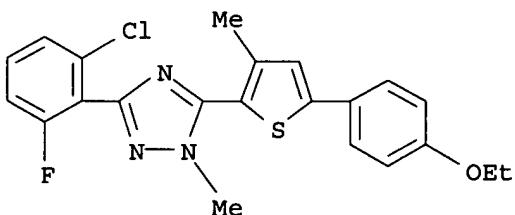
RN 503308-69-8 HCPLUS

CN 1H-1,2,4-Triazole, 5-[4-bromo-5-[4-(trifluoromethoxy)phenyl]-2-thienyl]-3-(2-chloro-6-fluorophenyl)-1-methyl- (9CI) (CA INDEX NAME)



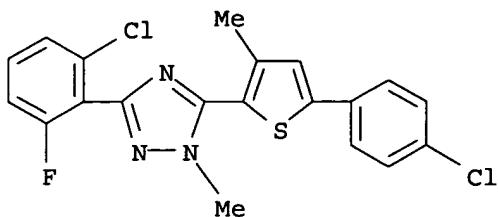
RN 503308-70-1 HCPLUS

CN 1H-1,2,4-Triazole, 3-(2-chloro-6-fluorophenyl)-5-[5-(4-ethoxyphenyl)-3-methyl-2-thienyl]-1-methyl- (9CI) (CA INDEX NAME)



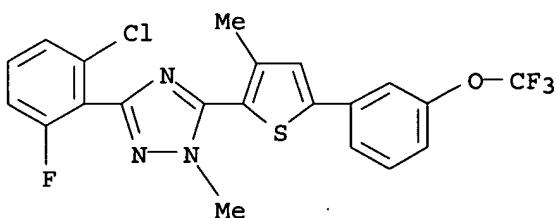
RN 503308-71-2 HCPLUS

CN 1H-1,2,4-Triazole, 3-(2-chloro-6-fluorophenyl)-5-[5-(4-chlorophenyl)-3-methyl-2-thienyl]-1-methyl- (9CI) (CA INDEX NAME)



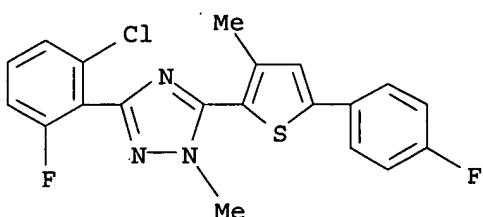
RN 503308-72-3 HCPLUS

CN 1H-1,2,4-Triazole, 3-(2-chloro-6-fluorophenyl)-1-methyl-5-[3-methyl-5-[3-(trifluoromethoxy)phenyl]-2-thienyl]- (9CI) (CA INDEX NAME)



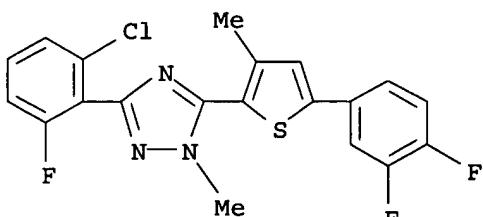
RN 503308-73-4 HCPLUS

CN 1H-1,2,4-Triazole, 3-(2-chloro-6-fluorophenyl)-5-[5-(4-fluorophenyl)-3-methyl-2-thienyl]-1-methyl- (9CI) (CA INDEX NAME)



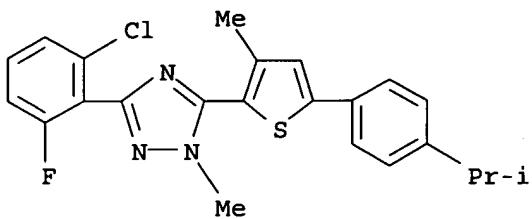
RN 503308-74-5 HCPLUS

CN 1H-1,2,4-Triazole, 3-(2-chloro-6-fluorophenyl)-5-[5-(3,4-difluorophenyl)-3-methyl-2-thienyl]-1-methyl- (9CI) (CA INDEX NAME)

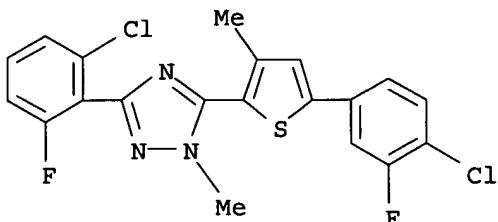


RN 503308-75-6 HCPLUS

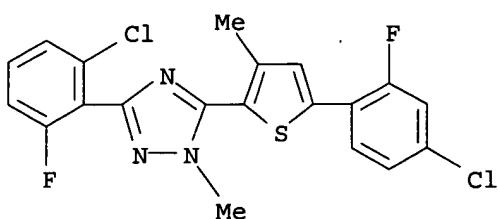
CN 1H-1,2,4-Triazole, 3-(2-chloro-6-fluorophenyl)-1-methyl-5-[3-methyl-5-[4-(1-methylethyl)phenyl]-2-thienyl]- (9CI) (CA INDEX NAME)



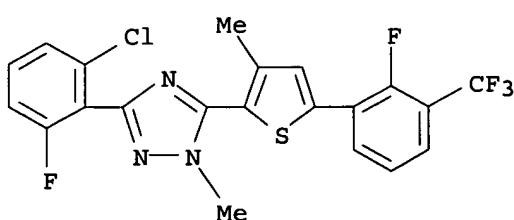
RN 503308-76-7 HCPLUS
 CN 1H-1,2,4-Triazole, 3-(2-chloro-6-fluorophenyl)-5-[5-(4-chloro-3-fluorophenyl)-3-methyl-2-thienyl]-1-methyl- (9CI) (CA INDEX NAME)



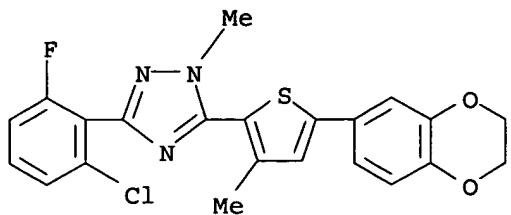
RN 503308-77-8 HCPLUS
 CN 1H-1,2,4-Triazole, 3-(2-chloro-6-fluorophenyl)-5-[5-(4-chloro-2-fluorophenyl)-3-methyl-2-thienyl]-1-methyl- (9CI) (CA INDEX NAME)



RN 503308-78-9 HCPLUS
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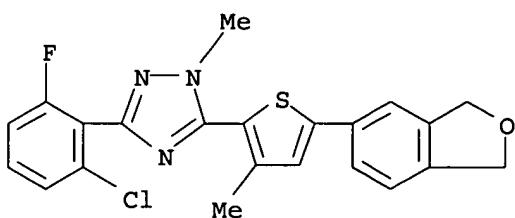


RN 503308-79-0 HCPLUS
 CN 1H-1,2,4-Triazole, 3-(2-chloro-6-fluorophenyl)-5-[5-(2,3-dihydro-1,4-benzodioxin-6-yl)-3-methyl-2-thienyl]-1-methyl- (9CI) (CA INDEX NAME)



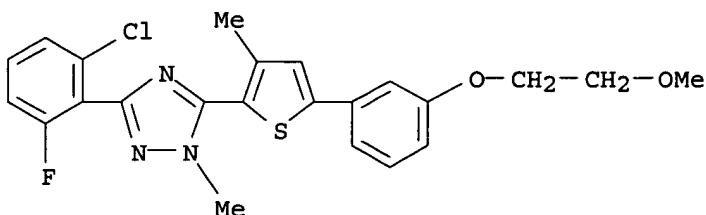
RN 503308-80-3 HCAPLUS

CN 1H-1,2,4-Triazole, 3-(2-chloro-6-fluorophenyl)-5-[5-(1,3-dihydro-5-isobenzofuranyl)-3-methyl-2-thienyl]-1-methyl- (9CI) (CA INDEX NAME)



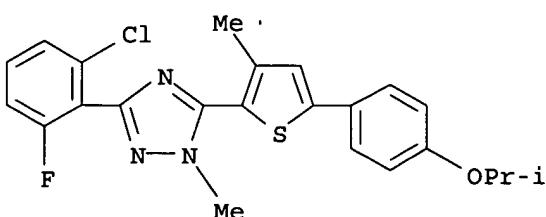
RN 503308-81-4 HCAPLUS

CN 1H-1,2,4-Triazole, 3-(2-chloro-6-fluorophenyl)-5-[5-[3-(2-methoxyethoxy)phenyl]-3-methyl-2-thienyl]-1-methyl- (9CI) (CA INDEX NAME)



RN 503308-82-5 HCAPLUS

CN 1H-1,2,4-Triazole, 3-(2-chloro-6-fluorophenyl)-1-methyl-5-[3-methyl-5-[4-(1-methylethoxy)phenyl]-2-thienyl]- (9CI) (CA INDEX NAME)



L5 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2000:47037 HCAPLUS

DN 132:89499

ED Entered STN: 20 Jan 2000

TI Preparation of 3-(substituted phenyl)-5-(thienyl or furyl)-1,2,4-triazole derivatives as acaricides and insecticides

IN Pechacek, James T.; Devries, Donald H.; Tisdell, Francis E.; Suhr, Robert G.; Johnson, Peter L.; Hatton, Christopher J.; Yap, Maurice Chee Hoong; Stockdale, Gary D.; Hamilton, Christopher T.; Johnson, George W.

PA USA

SO U.S., 35 pp.

CODEN: USXXAM

DT Patent

LA English

IC ICM A01N043-653

ICS C07D409-04; C07D405-04

NCL 514383000

CC 5-4 (Agrochemical Bioregulators)

Section cross-reference(s): 28

FAN.CNT 2

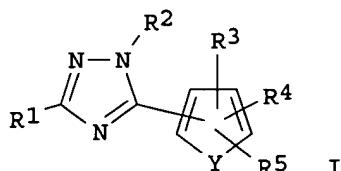
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6015826	A	200000118	US 1998-48601	19980326
	US 6262305	B1	20010717	US 1999-389702	19990903
PRAI	US 1997-44697P	P	19970424		
	US 1997-66135P	P	19971119		
	US 1998-48601	A3	19980326		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 6015826	ICM	A01N043-653
	ICS	C07D409-04; C07D405-04
	NCL	514383000

OS MARPAT 132:89499

GI



AB 3-(Substituted phenyl)-5-(thienyl or furyl)-1,2,4-triazole derivs. I [R1 = substituted Ph; Y = O or S; R2 = (halo)alkyl, alkenyl, alkynyl or alkoxyalkyl; R3 = H, halo, (halo)alkyl, OH, alkoxy, alkoxyalkyl, etc.; R4, R5 = H, halo, (halo)alkyl, CN, etc.; R4CR5 = ring] are prepared as insecticides and acaricides.

ST triazole deriv prepn acaricide insecticide

IT Acaricides

Insecticides

(triazole derivs.)

IT 21075-83-2 254964-46-0

RL: RCT (Reactant); RACT (Reactant or reagent)

(intermediate in preparation of triazole derivative acaricide and insecticide)

IT 22547-51-9P 37532-03-9P 60230-33-3P 82490-87-7P 93061-86-0P

152170-04-2P 165597-32-0P 167907-35-9P 214409-22-0P 214409-23-1P

214409-24-2P 214409-25-3P 214409-26-4P 214409-27-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate in preparation of triazole derivative acaricide and insecticide)

IT 214407-74-6P 214407-75-7P 214407-76-8P 214407-77-9P 214407-78-0P

214407-79-1P 214407-80-4P 214407-81-5P 214407-82-6P 214407-83-7P

214407-84-8P 214407-86-0P 214407-87-1P 214407-88-2P 214407-89-3P

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254964-45-9P	254964-47-1P			

RL: AGR (Agricultural use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation as acaricide and insecticide)

IT 121-44-8, Triethylamine, reactions 1003-31-2, 2-Cyanothiophene
 1641-09-4, 3-Cyanothiophene 1897-52-5, 2,6-Difluorobenzonitrile
 27610-45-3, Sodium sulfide hydrate 57753-80-7 71105-25-4,
 2-Cyano-3,4,5-trichlorothiophene 79455-63-3 152170-06-4 175137-66-3
 214408-18-1 214408-23-8 214409-28-6, 3-Hexyl-2-thiophenecarboxylic acid

RL: RCT (Reactant); RACT (Reactant or reagent)

(reactant in preparation of triazole derivative acaricide and insecticide)

RE.CNT 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Anon; JP 07076577 A 1965 HCPLUS
- (2) Anon; JP 05310712 1993 HCPLUS
- (3) Anon; EP 0572142 1993 HCPLUS
- (4) Anon; WO 9424110 1994 HCPLUS
- (5) Anon; EP 0648752 1995 HCPLUS
- (6) Anon; JP 07-33731 1995 HCPLUS
- (7) Anon; JP 07-76577 1995 HCPLUS
- (8) Anon; WO 09533732 1995 HCPLUS
- (9) Anon; JP 08-12657 1996 HCPLUS
- (10) Anon; JP 08-245315 1996 HCPLUS
- (11) Anon; JP 08-283261 1996 HCPLUS
- (12) Anon; JP 08-92224 1996 HCPLUS
- (13) Anon; EP 717039 A 1996 HCPLUS
- (14) Anon; JP 73-30742 A 1996 HCPLUS
- (15) Anon; JP 80-92224 A 1996
- (16) Anon; JP 81-65283 A 1996
- (17) Anon; JP 82-45315 A 1996
- (18) Anon; JP 08-283261 A 1997 HCPLUS
- (19) Evans; US 4038405 1977 HCPLUS
- (20) Ito, S; Bulletin of the Chemical Society of Japan 1983, V56, P545 HCPLUS
- (21) Ohi; US 5567825 1996 HCPLUS
- (22) Ozaki; US 5284860 1994 HCPLUS
- (23) Ozaki; US 5318959 1994 HCPLUS
- (24) Ozaki; US 5380944 1995 HCPLUS

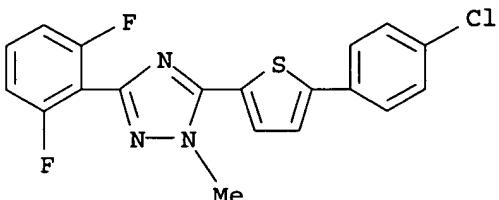
(25) Ozaki; US 5466705 1995 HCPLUS
 (26) Ozaki; US 5482951 1996 HCPLUS
 (27) Ozaki; US 5616594 1997 HCPLUS

IT 214407-96-2P 214408-02-3P

RL: AGR (Agricultural use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (preparation as acaricide and insecticide)

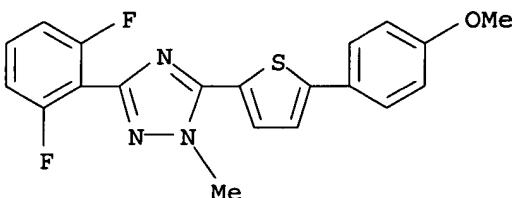
RN 214407-96-2 HCPLUS

CN 1H-1,2,4-Triazole, 5-[5-(4-chlorophenyl)-2-thienyl]-3-(2,6-difluorophenyl)-1-methyl- (9CI) (CA INDEX NAME)



RN 214408-02-3 HCPLUS

CN 1H-1,2,4-Triazole, 3-(2,6-difluorophenyl)-5-[5-(4-methoxyphenyl)-2-thienyl]-1-methyl- (9CI) (CA INDEX NAME)



L5 ANSWER 3 OF 3 HCPLUS COPYRIGHT 2004 ACS on STN

AN 1998:709073 HCPLUS

DN 129:302644

ED Entered STN: 09 Nov 1998

TI Preparation of 3-aryl-5-thienyl- and 3-aryl-5-furyl-1,2,4-triazoles as pesticides.

IN Pechacek, James T.; Tisdell, Francis E.; De Vries, Donald H.; Suhr, Robert G.; Johnson, Peter L.; Stockdale, Gary D.; Ash, Mary L.; Hamilton, Christopher T.; Hatton, Christopher J.; Johnson, George W.; Yap, Maurice Chee Hoong

PA Dow Agrosciences LLC, USA

SO PCT Int. Appl., 81 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM C07D409-04

ICS C07D405-04; C07D409-14; C07D413-14; A01N043-653; C07C327-58;
 C07C281-04; C07C257-22; C07C311-49

CC 28-10 (Heterocyclic Compounds (More Than One Hetero Atom))
 Section cross-reference(s): 5

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9847894	A1	19981029	WO 1998-US5317	19980318
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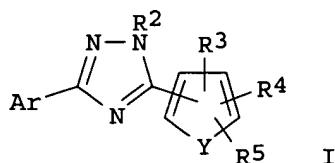
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 FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM,
 GA, GN, ML, MR, NE, SN, TD, TG
 CA 2259246 AA 19981029 CA 1998-2259246 19980318
 AU 9868658 A1 19981113 AU 1998-68658 19980318
 AU 730027 B2 20010222
 EP 922043 A1 19990616 EP 1998-914256 19980318
 EP 922043 B1 20020130
 R: DE, ES, FR, GB, GR, IT, NL
 BR 9804865 A 19990824 BR 1998-4865 19980318
 JP 2000516260 T2 20001205 JP 1998-545790 19980318
 EP 1113004 A2 20010704 EP 2001-109566 19980318
 EP 1113004 A3 20010718
 R: DE, ES, FR, GB, GR, IT, NL
 ES 2167882 T3 20020516 ES 1998-914256 19980318
 KR 2000022164 A 20000425 KR 1998-710582 19981224
 PRAI US 1997-44697P P 19970424
 US 1997-66135P P 19971119
 EP 1998-914256 A3 19980318
 WO 1998-US5317 W 19980318

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 9847894	ICM	C07D409-04
	ICS	C07D405-04; C07D409-14; C07D413-14; A01N043-653; C07C327-58; C07C281-04; C07C257-22; C07C311-49

OS MARPAT 129:302644

GI



AB Title compds. [I; Ar = substituted Ph; Y = O, S; R2 = alkyl, haloalkyl, alkenyl, alkynyl, alkoxyalkyl; R3 = H, halo, alkyl, OH, alkoxy, haloalkyl, haloalkoxy, alkoxyalkyl, alkenyl, alkynyl, haloalkenyl, cyano, NO2, SCN, acyl, heterocyclyl, etc.; R4, R5 = H, halo, alkyl, alkoxy, haloalkyl, haloalkoxy, cyano, acyl; adjacent R4R5 = atoms to form a 5-6 membered (substituted) carbocyclic ring], were prepared Thus, 3-hexyl-2-thiophenecarboxylic acid was refluxed with SOCl2 and catalytic DMF in 1,2-dichloroethane and the residue was refluxed with 2,6-F2C6H3C(NH2):NN(Me)CO2CMe3.HI (preparation given) in PhMe to give 76% 3-(2,6-difluorophenyl)-5-(3-hexylthien-2-yl)-1-methyl-1,2,4-triazole. The latter at 50 ppm gave 61-70% control of cotton aphid.

ST thienylaryltriazole furylaryltriazole prepn pesticide; triazole thienyl furyl prepn pesticide; insecticide thienylaryltriazole furylaryltriazole prepn; acaricide thienylaryltriazole furylaryltriazole prepn

IT Acaricides
Insecticides
Pesticides
(preparation of 3-aryl-5-thienyl- and 3-aryl-5-furyl-1,2,4-triazoles as pesticides)

IT 214407-77-9 214407-83-7 214408-00-1 214408-04-5 214408-08-9
214408-09-0 214408-10-3 214408-15-8 214408-21-6 214408-22-7
214408-28-3 214408-33-0 214408-36-3 214408-39-6 214408-43-2

214408-45-4	214408-51-2	214408-55-6	214408-56-7	214408-57-8
214408-58-9	214408-59-0	214408-60-3	214408-72-7	214408-80-7
214408-84-1	214408-85-2	214408-86-3	214408-91-0	214408-92-1
214408-93-2	214408-94-3	214408-97-6	214408-98-7	214408-99-8
214409-00-4	214409-01-5	214409-02-6	214409-07-1	214409-08-2
214409-09-3	214409-12-8	214409-13-9		

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)

(preparation of 3-aryl-5-thienyl- and 3-aryl-5-furyl-1,2,4-triazoles as pesticides)

IT 214407-74-6P 214407-75-7P 214407-76-8P 214407-78-0P 214407-79-1P
 214407-80-4P 214407-81-5P 214407-82-6P 214407-84-8P 214407-85-9P
 214407-86-0P 214407-87-1P 214407-88-2P 214407-89-3P 214407-90-6P
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214407-96-2P 214407-97-3P 214407-98-4P 214407-99-5P
 214408-01-2P **214408-02-3P** 214408-03-4P 214408-05-6P
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 214408-14-7P 214408-16-9P 214408-17-0P 214408-18-1P 214408-19-2P
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 214408-27-2P 214408-29-4P 214408-30-7P 214408-31-8P 214408-32-9P
 214408-34-1P 214408-35-2P 214408-37-4P 214408-38-5P 214408-40-9P
 214408-41-0P 214408-42-1P 214408-44-3P 214408-46-5P 214408-47-6P
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 214408-70-5P 214408-71-6P 214408-73-8P 214408-74-9P 214408-75-0P
 214408-76-1P 214408-77-2P 214408-78-3P 214408-79-4P 214408-81-8P
 214408-82-9P 214408-83-0P 214408-87-4P 214408-88-5P 214408-89-6P
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 214409-05-9P 214409-06-0P 214409-10-6P 214409-11-7P 214409-14-0P
 214409-15-1P 214409-16-2P 214409-17-3P 214409-18-4P 214409-19-5P
 214409-20-8P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (preparation of 3-aryl-5-thienyl- and 3-aryl-5-furyl-1,2,4-triazoles as pesticides)

IT 60-34-4, Methylhydrazine 80-17-1, Benzenesulfonylhydrazide 98-59-9,
 4-Methylbenzenesulfonyl chloride 98-60-2, 4-Chlorophenylsulfonyl
 chloride 124-63-0, Methanesulfonyl chloride 1003-31-2,
 2-Cyanothiophene 1641-09-4, 3-Cyanothiophene 1897-52-5 6579-54-0,
 2,6-Dichlorobenzenesulfonyl chloride 57753-80-7 71105-25-4,
 2-Cyano-3,4,5-trichlorothiophene 79455-63-3 175137-66-3 214409-28-6,
 3-Hexyl-2-thiophenecarboxylic acid
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of 3-aryl-5-thienyl- and 3-aryl-5-furyl-1,2,4-triazoles as pesticides)

IT 21075-83-2P 22547-51-9P 37532-03-9P 60230-33-3P 82490-87-7P
 93061-86-0P 152170-04-2P 165597-32-0P 167907-35-9P 214409-21-9P
 214409-22-0P 214409-23-1P 214409-24-2P 214409-25-3P 214409-26-4P
 214409-27-5P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation of 3-aryl-5-thienyl- and 3-aryl-5-furyl-1,2,4-triazoles as pesticides)

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Atkinson, M; JOURNAL OF THE CHEMICAL SOCIETY 1954, P3319 HCAPLUS
- (2) Fuss, A; US 4727142 A 1988 HCAPLUS
- (3) Ito, S; BULLETIN OF THE CHEMICAL SOCIETY OF JAPAN 1983, V56(2), P545 HCAPLUS
- (4) Kumiai Chemical Industry Co Ltd; EP 0572142 A 1993 HCAPLUS

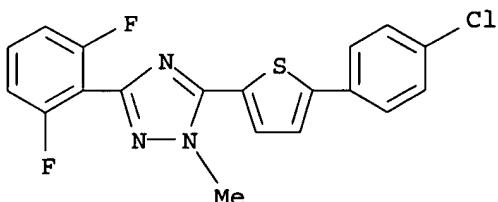
(5) Kumiai Chemical Industry Co Ltd; EP 0648752 A 1995 HCPLUS
 (6) Metz, H; CHEMISCHE BERICHTE 1982, V115(8), P2807 HCPLUS
 (7) Osaki, M; US 5380944 A 1995 HCPLUS
 (8) Ozaki, M; US 5284860 A 1994 HCPLUS
 (9) Shell Research Limited; GB 987253 A 1965 HCPLUS

IT 214407-96-2P 214408-02-3P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of 3-aryl-5-thienyl- and 3-aryl-5-furyl-1,2,4-triazoles as pesticides)

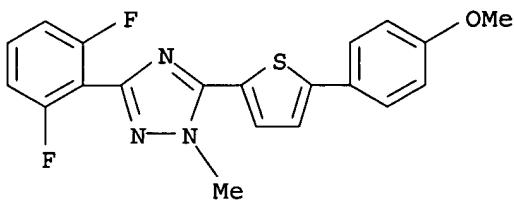
RN 214407-96-2 HCPLUS

CN 1H-1,2,4-Triazole, 5-[5-(4-chlorophenyl)-2-thienyl]-3-(2,6-difluorophenyl)-1-methyl- (9CI) (CA INDEX NAME)



RN 214408-02-3 HCPLUS

CN 1H-1,2,4-Triazole, 3-(2,6-difluorophenyl)-5-[5-(4-methoxyphenyl)-2-thienyl]-1-methyl- (9CI) (CA INDEX NAME)



=> fil uspatall

FILE 'USPATFULL' ENTERED AT 17:06:33 ON 28 OCT 2004

CA INDEXING COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'USPAT2' ENTERED AT 17:06:33 ON 28 OCT 2004

CA INDEXING COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

=> d bib abs hitrn fhitstr tot

L6 ANSWER 1 OF 6 USPATFULL on STN

AN 2004:221889 USPATFULL

TI Insecticidal 3-(2,6-disubstituted phenyl)-5-[5-arylthien-2-yl]-1,2,4-triazoles

IN Hegde, Vidyadhar Babu, Carmel, IN, UNITED STATES

Bis, Scott Jerome, Midland, MI, UNITED STATES

Yap, Maurice Chee Hoong, Zionsville, IN, UNITED STATES

Perreault, Denise Marie, Indianapolis, IN, UNITED STATES

Tisdell, Francis Eugene, Carmel, IN, UNITED STATES

Dintenfass, Leonard Paul, Indianapolis, IN, UNITED STATES

Dripps, James Edwin, Carmel, IN, UNITED STATES

Gifford, James Michael, Lebanon, IN, UNITED STATES

Guenthenspberger, Katherine Anne, Daleville, IN, UNITED STATES

Karr, Laura Lee, Lebanon, IN, UNITED STATES
 Schoonover, Joe Raymond, Brownsburg, IN, UNITED STATES

PI US 2004171661 A1 20040902
 AI US 2003-664463 A1 20030917 (10)
 RLI Division of Ser. No. US 2002-244124, filed on 13 Sep 2002, PENDING
 DT Utility
 FS APPLICATION
 LREP DOW AGROSCIENCES LLC, 9330 ZIONSVILLE RD, INDIANAPOLIS, IN, 46268
 CLMN Number of Claims: 21
 ECL Exemplary Claim: 1
 DRWN No Drawings
 LN.CNT 2007

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Triazole compounds having a 2,6-disubstituted-phenyl group in the 3-position, 5'-arylthien-2-yl group in the 5-position and an alkyl group in the 1-position are effective in controlling lepidoptera, coleoptera, mites and other sucking pests.

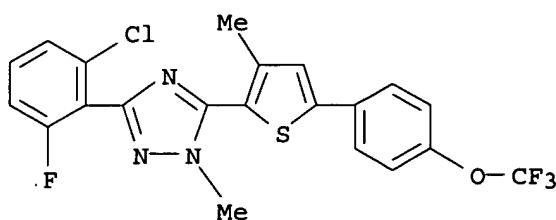
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 503308-03-0P 503308-04-1P 503308-05-2P
 503308-06-3P 503308-07-4P 503308-08-5P
 503308-09-6P 503308-10-9P 503308-11-0P
 503308-12-1P 503308-13-2P 503308-14-3P
 503308-15-4P 503308-16-5P 503308-17-6P
 503308-18-7P 503308-38-1P 503308-50-7P
 503308-51-8P 503308-52-9P 503308-53-0P
 503308-55-2P 503308-61-0P 503308-63-2P
 503308-64-3P 503308-65-4P 503308-66-5P
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 503308-70-1P 503308-71-2P 503308-72-3P
 503308-73-4P 503308-74-5P 503308-75-6P
 503308-76-7P 503308-77-8P 503308-78-9P
 503308-79-0P 503308-80-3P 503308-81-4P
 503308-82-5P
 (preparation of insecticidal 3-(2,6-disubstituted phenyl)-5-[4-(or 5-)arylthien-2-(or 3)-yl]-1,2,4-triazoles)

IT 503308-03-0P
 (preparation of insecticidal 3-(2,6-disubstituted phenyl)-5-[4-(or 5-)arylthien-2-(or 3)-yl]-1,2,4-triazoles)

RN 503308-03-0 USPATFULL

CN 1H-1,2,4-Triazole, 3-(2-chloro-6-fluorophenyl)-1-methyl-5-[3-methyl-5-[4-(trifluoromethoxy)phenyl]-2-thienyl]- (9CI) (CA INDEX NAME)



L6 ANSWER 2 OF 6 USPATFULL on STN
 AN 2004:95432 USPATFULL
 TI Insecticidal 3-(2,6-disubstituted phenyl)-5-[5-arylthien-3-yl]-1,2,4-triazoles
 IN Hegde, Vidyadhar Babu, Carmel, IN, UNITED STATES
 Bis, Scott Jerome, Midland, MI, UNITED STATES
 Yap, Maurice Chee Hoong, Zionsville, IN, UNITED STATES
 Perreault, Denise Marie, Indianapolis, IN, UNITED STATES

Tisdell, Francis Eugene, Carmel, IN, UNITED STATES
 Dintenfass, Leonard Paul, Indianapolis, IN, UNITED STATES
 Dripps, James Edwin, Carmel, IN, UNITED STATES
 Gifford, James Michael, Lebanon, IN, UNITED STATES
 Guenthenspberger, Katherine Anne, Daleville, IN, UNITED STATES
 Karr, Laura Lee, Lebanon, IN, UNITED STATES
 Schoonover, Joe Raymond, Brownsburg, IN, UNITED STATES

PI US 2004072887 A1 20040415
 AI US 2003-664145 A1 20030917 (10)

RLI Division of Ser. No. US 2002-244124, filed on 13 Sep 2002, PENDING

PRAI US 2001-322236P 20010914 (60)

DT Utility

FS APPLICATION

LREP DOW AGROSCIENCES LLC, 9330 ZIONSVILLE RD, INDIANAPOLIS, IN, 46268

CLMN Number of Claims: 21

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 1993

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Triazole compounds having a 2,6-disubstituted-phenyl group in the 3-position, 5'-arylthien-3-yl group in the 5-position and an alkyl group in the 1-position are effective in controlling lepidoptera, coleoptera, mites and other sucking pests.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

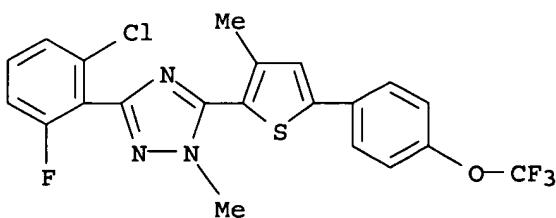
IT 503308-03-0P 503308-04-1P 503308-05-2P
 503308-06-3P 503308-07-4P 503308-08-5P
 503308-09-6P 503308-10-9P 503308-11-0P
 503308-12-1P 503308-13-2P 503308-14-3P
 503308-15-4P 503308-16-5P 503308-17-6P
 503308-18-7P 503308-38-1P 503308-50-7P
 503308-51-8P 503308-52-9P 503308-53-0P
 503308-55-2P 503308-61-0P 503308-63-2P
 503308-64-3P 503308-65-4P 503308-66-5P
 503308-67-6P 503308-68-7P 503308-69-8P
 503308-70-1P 503308-71-2P 503308-72-3P
 503308-73-4P 503308-74-5P 503308-75-6P
 503308-76-7P 503308-77-8P 503308-78-9P
 503308-79-0P 503308-80-3P 503308-81-4P
 503308-82-5P

(preparation of insecticidal 3-(2,6-disubstituted phenyl)-5-[4-(or 5-)arylthien-2-(or 3)-yl]-1,2,4-triazoles)

IT 503308-03-0P
 (preparation of insecticidal 3-(2,6-disubstituted phenyl)-5-[4-(or 5-)arylthien-2-(or 3)-yl]-1,2,4-triazoles)

RN 503308-03-0 USPATFULL

CN 1H-1,2,4-Triazole, 3-(2-chloro-6-fluorophenyl)-1-methyl-5-[3-methyl-5-[4-(trifluoromethoxy)phenyl]-2-thienyl]- (9CI) (CA INDEX NAME)



L6 ANSWER 3 OF 6 USPATFULL on STN
 AN 2003:194937 USPATFULL

TI Insecticidal 3-(2,6-disubstituted phenyl)-5-[4- or 5-arylthien-2- or -3-yl]-1,2,4-triazoles

IN Hegde, Vidyadhar Babu, Carmel, IN, UNITED STATES
 Bis, Scott Jerome, Midland, MI, UNITED STATES
 Yap, Maurice Chee Hoong, Zionsville, IN, UNITED STATES
 Perreault, Denise Marie, Indianapolis, IN, UNITED STATES
 Tisdell, Francis Eugene, Carmel, IN, UNITED STATES
 Dintenfass, Leonard Paul, Indianapolis, IN, UNITED STATES
 Dripps, James Edwin, Carmel, IN, UNITED STATES
 Gifford, James Michael, Lebanon, IN, UNITED STATES
 Guenthenspberger, Katherine Anne, Daleville, IN, UNITED STATES
 Karr, Laura Lee, Lebanon, IN, UNITED STATES
 Schoonover, Joe Raymond, Brownsburg, IN, UNITED STATES

PI US 2003134748 A1 20030717

US 6770665 B2 20040803

AI US 2002-244124 A1 20020913 (10)

PRAI US 2001-322236P 20010914 (60)

DT Utility

FS APPLICATION

LREP DOW AGROSCIENCES LLC, 9330 ZIONSVILLE RD, INDIANAPOLIS, IN, 46268

CLMN Number of Claims: 30

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 2009

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Triazole compounds having a 2,6-disubstituted-phenyl group in the 3-position, arylthien-2- or -3-yl in the 5-position and an alkyl group in the 1-position are effective in controlling lepidoptera, coleoptera, mites and other sucking pests.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 503308-03-0P 503308-04-1P 503308-05-2P

503308-06-3P 503308-07-4P 503308-08-5P

503308-09-6P 503308-10-9P 503308-11-0P

503308-12-1P 503308-13-2P 503308-14-3P

503308-15-4P 503308-16-5P 503308-17-6P

503308-18-7P 503308-38-1P 503308-50-7P

503308-51-8P 503308-52-9P 503308-53-0P

503308-55-2P 503308-61-0P 503308-63-2P

503308-64-3P 503308-65-4P 503308-66-5P

503308-67-6P 503308-68-7P 503308-69-8P

503308-70-1P 503308-71-2P 503308-72-3P

503308-73-4P 503308-74-5P 503308-75-6P

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503308-79-0P 503308-80-3P 503308-81-4P

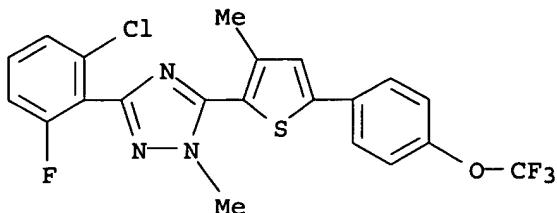
503308-82-5P

(preparation of insecticidal 3-(2,6-disubstituted phenyl)-5-[4-(or 5-)arylthien-2-(or 3)-yl]-1,2,4-triazoles)

IT 503308-03-0P
 (preparation of insecticidal 3-(2,6-disubstituted phenyl)-5-[4-(or 5-)arylthien-2-(or 3)-yl]-1,2,4-triazoles)

RN 503308-03-0 USPATFULL

CN 1H-1,2,4-Triazole, 3-(2-chloro-6-fluorophenyl)-1-methyl-5-[3-methyl-5-[4-(trifluoromethoxy)phenyl]-2-thienyl]- (9CI) (CA INDEX NAME)



L6 ANSWER 4 OF 6 USPATFULL on STN

AN 2001:112569 USPATFULL

TI Process and intermediates for preparing 3-(substituted phenyl)-5-(thienyl or furyl)-1,2,4-triazole compounds

IN Pechacek, James T., Indianapolis, IN, United States
Tisdell, Francis E., Carmel, IN, United States

PA Dow AgroSciences LLC, Indianapolis, IN, United States (U.S. corporation)

PI US 6262305 B1 20010717

AI US 1999-389702 19990903 (9)

RLI Division of Ser. No. US 1998-48601, filed on 26 Mar 1998, now patented,
Pat. No. US 6015826

DT Utility

FS GRANTED

EXNAM Primary Examiner: Morris, Patricia L.

LREP Stuart, Donald R., Mixan, Craig E.

CLMN Number of Claims: 1

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 1406

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB 3-(Substituted phenyl)-5-(thienyl or furyl)-1,2,4-triazole compounds are useful as insecticides and acaricides. New synthetic procedures and intermediates for preparing the compounds, pesticide compositions containing the compounds, and methods of controlling insects and mites using the compounds are also provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 214407-96-2P 214408-02-3P

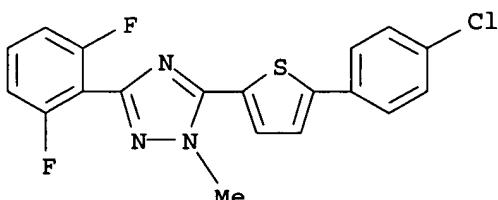
(preparation of 3-aryl-5-thienyl- and 3-aryl-5-furyl-1,2,4-triazoles as pesticides)

IT 214407-96-2P

(preparation of 3-aryl-5-thienyl- and 3-aryl-5-furyl-1,2,4-triazoles as pesticides)

RN 214407-96-2 USPATFULL

CN 1H-1,2,4-Triazole, 5-[5-(4-chlorophenyl)-2-thienyl]-3-(2,6-difluorophenyl)-1-methyl- (9CI) (CA INDEX NAME)



L6 ANSWER 5 OF 6 USPATFULL on STN

AN 2000:7327 USPATFULL

TI 3-(substituted phenyl)-5-(thienyl or furyl)-1, 2, 4-triazole compounds

IN Pechacek, James T., 1230 Munsee Ct., Indianapolis, IN, United States
 46260
 DeVries, Donald H., 9878 Woodlands Dr., Fishers, IN, United States
 46038
 Tisdell, Francis E., 68 Parkview Rd., Carmel, IN, United States 46032
 Suhr, Robert G., 1522 Bruner Dr., Greenfield, IN, United States 46140
 Johnson, Peter L., 8016 N. Dartmouth Rd., Indianapolis, IN, United
 States 46260
 Hatton, Christopher J., 2525 State Rd. 38 East, Westfield, IN, United
 States 46074
 Yap, Maurice Chee Hoong, 22 Chestnut Ct., Zionsville, IN, United States
 46077
 Stockdale, Gary D., 8722 Knickerbocker Way Apt. 4D, Indianapolis, IN,
 United States 46240
 Hamilton, Christopher T., 8918 Dandy Creek Dr., Indianapolis, IN, United
 States 46234
 Johnson, George W., 6715 Knollcreek Dr., Indianapolis, IN, United States
 46256

PI US 6015826 20000118
 AI US 1998-48601 19980326 (9)

DT Utility

FS Granted

EXNAM Primary Examiner: Morris, Patricia L.

LREP Stuart, Donald R.

CLMN Number of Claims: 18

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 1575

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB 3-(Substituted phenyl)-5-(thienyl or furyl)-1,2,4-triazole compounds are useful as insecticides and acaricides. New synthetic procedures and intermediates for preparing the compounds, pesticide compositions containing the compounds, and methods of controlling insects and mites using the compounds are also provided.

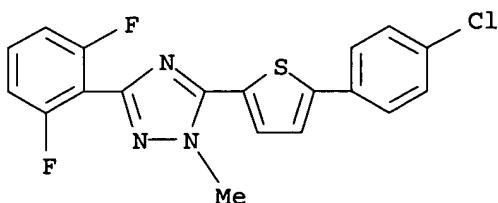
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 214407-96-2P 214408-02-3P
 (preparation as acaricide and insecticide)

IT 214407-96-2P
 (preparation as acaricide and insecticide)

RN 214407-96-2 USPATFULL

CN 1H-1,2,4-Triazole, 5-[5-(4-chlorophenyl)-2-thienyl]-3-(2,6-difluorophenyl)-1-methyl- (9CI) (CA INDEX NAME)



L6 ANSWER 6 OF 6 USPAT2 on STN
 AN 2003:194937 USPAT2
 TI Insecticidal 3-(2,6-disubstituted phenyl)-5-[4- or 5-arylthien-2- or
 -3-yl]-1,2,4-triazoles
 IN Hegde, Vidyadhar Babu, Carmel, IN, United States
 Bis, Scott Jerome, Midland, MI, United States
 Yap, Maurice Chee Hoong, Zionsville, IN, United States
 Perreault, Denise Marie, Indianapolis, IN, United States

Tisdell, Francis Eugene, Carmel, IN, United States
 Dintenfass, Leonard Paul, Indianapolis, IN, United States
 Dripps, James Edwin, Carmel, IN, United States
 Gifford, James Michael, Lebanon, IN, United States
 Guenthenspberger, Katherine Anne, Daleville, IN, United States
 Karr, Laura Lee, Lebanon, IN, United States
 Schoonover, Joe Raymond, Brownsburg, IN, United States

PA Dow AgroSciences LLC, Indianapolis, IN, United States (U.S. corporation)

PI US 6770665 B2 20040803

AI US 2002-244124 20020913 (10)

PRAI US 2001-322236P 20010914 (60)

DT Utility

FS GRANTED

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CLMN Number of Claims: 15

ECL Exemplary Claim: 1

DRWN 0 Drawing Figure(s); 0 Drawing Page(s)

LN.CNT 1826

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Triazole compounds having a 2,6-disubstituted-phenyl group in the 3-position, arylthien-2- or -3-yl in the 5-position and an alkyl group in the 1-position are effective in controlling lepidoptera, coleoptera, mites and other sucking pests.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 503308-03-0P 503308-04-1P 503308-05-2P

503308-06-3P 503308-07-4P 503308-08-5P

503308-09-6P 503308-10-9P 503308-11-0P

503308-12-1P 503308-13-2P 503308-14-3P

503308-15-4P 503308-16-5P 503308-17-6P

503308-18-7P 503308-38-1P 503308-50-7P

503308-51-8P 503308-52-9P 503308-53-0P

503308-55-2P 503308-61-0P 503308-63-2P

503308-64-3P 503308-65-4P 503308-66-5P

503308-67-6P 503308-68-7P 503308-69-8P

503308-70-1P 503308-71-2P 503308-72-3P

503308-73-4P 503308-74-5P 503308-75-6P

503308-76-7P 503308-77-8P 503308-78-9P

503308-79-0P 503308-80-3P 503308-81-4P

503308-82-5P

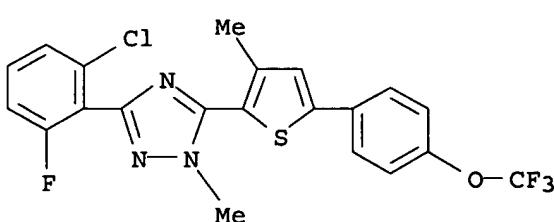
(preparation of insecticidal 3-(2,6-disubstituted phenyl)-5-[4-(or 5-)arylthien-2-(or 3)-yl]-1,2,4-triazoles)

IT 503308-03-0P

(preparation of insecticidal 3-(2,6-disubstituted phenyl)-5-[4-(or 5-)arylthien-2-(or 3)-yl]-1,2,4-triazoles)

RN 503308-03-0 USPAT2

CN 1H-1,2,4-Triazole, 3-(2-chloro-6-fluorophenyl)-1-methyl-5-[3-methyl-5-[4-(trifluoromethoxy)phenyl]-2-thienyl]- (9CI) (CA INDEX NAME)



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